

REMARKS

The term "radiationshielding" has been corrected to "radiation-shielding" in claims 13, 14 and 22 as suggested by the Examiner.

No new matter has been entered.

In the Office communication the following prior art documents were cited:

TAKANAKA U.S. 5,349,198

OTT U.S. 5,433,693

TAKANAKA discloses a beam supply device for supplying a radiation beam to multiple utilization rooms. The beam supply device comprises a beam generation device generating the radiation beam and a pre-branching transportation device guiding the beam from the generation device to a deflection point (column 1, lines 62-66; column 3, lines 12-19). A rotatable deflection electromagnet is disposed at this branching point for deflecting the beam 90° (column 1, lines 66-68; column 3, lines 20-25). A rotatable beam transportation device is coupled downstream of the deflection electromagnet (column 2, lines 3-6; column 3, lines 28-32).

Up to eight utilization rooms are then positioned on the circumference of a circle having a center in the branching point (column 2, lines 1-3; column 3, lines 32-35; Fig. 2). The walls/ceiling/floor of the utilization rooms facing the branching

point encloses a big rotation room, in which the deflection electromagnet and beam transportation device can be rotated by rotation means (column 2, lines 3-12; column 3, lines 36-44; column 4, lines 5-8). The walls/ceiling/floor of the utilization rooms facing the branching point are further equipped with a respective hole so that when the rotatable beam transportation device is directed toward the hole, the beam is deflected by the deflection electromagnet and transported through the beam transportation device into the room through the hole (column 3, lines 44-55).

Thus, TAKANAKA discloses a radiation system (Fig. 1) comprising:

a gantry (Fig. 1) comprising:

a static<sup>"</sup> gantry part (means of rotation 30 and implicit disclosed support for deflection electromagnet); and

a movable gantry part (rotatable deflection electromagnet 3) movably supported by the static gantry part;

a radiation head mechanically supported by the movable gantry part and being movable relative the static gantry part (implicitly disclosed by TAKANAKA) between a first position for directing a radiation beam into a first treatment room and a second position for directing the radiation beam into a second treatment room.

However, TAKANAKA fails to disclose that the radiation head is movable in a spacing of the separating member separating

the at least two treatment rooms. In clear contrast, TAKANAKA has a movable radiation head provided in a dedicated rotation room provided outside of the treatment rooms and outside of the separating members (walls, ceiling, floor) of the treatment rooms (see Figs. 1-4; column 3, lines 36-44).

TAKANAKA does further not disclose any movable radiation shielding<sup>¶</sup> being part of the movable gantry part and preventing radiation from reaching the second treatment room when the radiation head is in the first position and preventing radiation from reaching the first treatment room when the radiation head is in the second position.

OTT discloses a radiation treatment arrangement, where multiple patient treatment rooms are circularly spaced around a nuclear reactor core (Abstract; column 4, lines 58-64). A respective beam tube is arranged in connection to the treatment rooms for permitting neutron transmission from the reactor core to reach patients positioned in the different rooms (column 5, lines 33-36).

OTT further teaches that a reactor shielding surrounds the core and the moderator rings with the beam tubes passing through this shielding (column 4, lines 66-67; column 5, lines 33-36). Correspondingly, the walls and ceiling of the different treatment rooms are provided with radiation shielding (column 5, lines 36-39; column 6, lines 65-66).<sup>¶</sup>

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TAKANAKA is, as was discussed above, totally silent about the use of radiation shieldings for preventing (leakage) radiation from entering the other utilization rooms when irradiating a patient in a particular room. The reason for this is that the solution presented by TAKANAKA is actually not adapted for allowing beam set-up, simulation and other treatment preparatory and follow-up procedures in treatment room simultaneously as a patient is irradiated in a given room. On the contrary, the objective of this beam supply device is to use a single beam transportation device for providing different beam incident angles (in different treatment rooms), see column 1, lines 42-50.

TAKANAKA does not disclose or even suggest that patients and personnel can be present in rooms when the radiation beam is directed into an adjacent treatment room. This is further illustrated by the solution where all the treatment rooms are interconnected and in direct contact, without any radiation shielding, with the beam transportation device and deflecting electromagnet through the holes in the wall/ceiling/floor of the rooms.

OTT discloses slidable shielding shutters that can be used for closing the beam tubes into the treatment rooms. Thus, by applying the teachings of OTT regarding slidable shielding shutters, to the radiation system taught by TAKANAKA, if thought

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of, a respective slidable shielding shutter is provided in connection with the holes into each treatment room.

A combination of TAKANAKA and OTT will, though, not disclose a movable radiation shielding that is a part of the movable gantry part. In clear contrast, the slidable shielding shutters according to OTT are individual and separate entities with a respective shutter being disconnected from any gantry parts and from any other shielding shutter.

The solution adopted by OTT having slidable shielding shutters in the walls enclosing the reactor core is actually incompatible with a radiation head that is movable in the radiation-shielding separating member. In clear contrast, with a radiation head moving in the separating member there is no room for any shielding shutters in the separating member. The radiation system as defined by claim 11 has a radiation shielding that forms part of the movable gantry part to allow ample room for the shielding without hindering the movement of the radiation head.

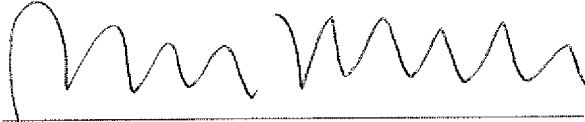
Thus, not even by combining TAKANAKA and OTT does the skilled artisan arrive a solution encompassed by the present claims.

Accordingly, and because none of the references either alone or in combination disclose or suggest the subject matter of the newly presented claims, applicant respectfully requests reconsideration and withdrawal of the outstanding rejections.

The Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 25-0120 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17.

Respectfully submitted,

YOUNG & THOMPSON

A handwritten signature in dark ink, appearing to read 'Robert J. Patch', written over a horizontal line.

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